Amendments to the Claims:

The following listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A vehicle integrated control system comprises a plurality of control units operating autonomously for controlling a running state of a vehicle based on a manipulation request,

wherein each control unit comprises:

a sensing unit for sensing an operation request with respect to at least one control unit, and

a controller for controlling said vehicle by generating a control target based on a sensed request, and manipulating an actuator set in correspondence with each said control unit, using said control target,

said system further comprising

a processing unit operating parallel to each said control unit for generating and providing to each said control unit information to be used to modify said operation request or said control target, as necessary, at each said control unit,

said at least one control unit or said processing unit generating information processed such that said sensed request is shared among each ~~of~~ said control unit.

2. (Currently Amended) A vehicle integrated control system comprising:

a plurality of control units controlling a running state of a vehicle based on a manipulation request, and

a processing unit generating information to be used at each said control unit based on environmental information around said vehicle or information related to a driver, and providing the generated information to each said control unit,

wherein each said control unit comprises:

a sensing unit for sensing an operation request with respect to at least one control unit, and

a calculation unit for calculating information related to a control target to manipulate an actuator set in correspondence with each said control unit using at least one of said information generated at said processing unit and said sensed operation request,

said at least one control unit or said processing unit generating information processed such that said sensed request is shared among each ~~of~~ said control unit.

3. (Currently Amended) A vehicle integrated control system comprising:

a plurality of control units controlling a running state of a vehicle based on a manipulation request, and

a processing unit generating information to be used at each said control unit to cause said vehicle to realize a predetermined behavior, and providing the generated information to each said control unit,

wherein each said control unit comprises:

a sensing unit for sensing an operation request with respect to at least one control unit, and

a calculation unit for calculating information related to a control target to manipulate an actuator set in correspondence with each said control unit using at least one of said information generated by said processing unit and said sensed operation request,

said at least one control unit or said processing unit generating information processed such that said sensed request is shared among each ~~of~~ said control unit.

4. (Currently Amended) A vehicle integrated control system comprising:

a plurality of control units controlling a running state of a vehicle based on a manipulation request, and

a processing unit generating information to be used at each said control unit based on a current dynamic state of said vehicle, and providing the generated information to each said control unit,

wherein each said control unit comprises:

a sensing unit for sensing an operation request with respect to at least one control unit, and

a calculation unit for calculating information related to a control target to manipulate an actuator set in correspondence with each said control unit using at least one of said information generated by said processing unit and said sensed operation request,

said at least one control unit or said processing unit generating information processed such that said sensed request is shared among each ~~of~~ said control unit.

5. (Currently Amended) A vehicle integrated control system comprising:

a plurality of control units controlling a running state of a vehicle based on a manipulation request,

a first processing unit generating information to be used at each said control unit based on environmental information around said vehicle or information related to a driver, and providing the generated information to each said control unit,

a second processing unit generating information to be used at each said control unit to cause said vehicle to realize a predetermined behavior, and providing the generated information to each said control unit, and

a third processing unit generating information to be used at each said control unit based on a current dynamic state of said vehicle, and providing the generated information to each said control unit,

wherein each said control unit comprises:

a sensing unit for sensing an operation request with respect to at least one control unit, and

a first calculation unit for calculating first information related to a control target to manipulate an actuator set in correspondence with each said control unit using at least one of said information generated at said first processing unit and said sensed operation request,

a second calculation unit for calculating second information related to a control target to manipulate an actuator set in correspondence with each said control unit using at least one of said information generated at said second processing unit and said calculated first information, and

a third calculation unit for calculating third information related to a control target to manipulate an actuator set in correspondence with each said control unit using at least one of said information generated at said third processing unit and said calculated second information,

said at least one control unit or each said first, second and third processing unit generating information processed such that said sensed request is shared among each ~~of~~ said control unit.

6. (Currently Amended) The vehicle integrated control system according to claim 2, wherein each said control unit operates autonomously and in parallel.

7. (Currently Amended) The vehicle integrated control system according to claim 1, wherein said processing unit ~~or said first processing unit~~ comprises:

a first sensing ~~unit~~ sub-unit for sensing environmental information around said vehicle,

a second sensing ~~unit~~ sub-unit for sensing information related to a driver of said vehicle, and

a processing ~~unit~~ sub-unit generating information processed such that said sensed information is shared among each of said control unit.

8. (Currently Amended) The vehicle integrated control system according to claim 7, wherein said processing ~~unit~~ sub-unit generates information representing a degree of correction with respect to a request of said driver at each said control unit.

9. (Currently Amended) The vehicle integrated control system according to claim 1, wherein said processing unit ~~or said second processing unit~~ comprises a processing ~~unit~~ sub-unit generating information processed so as to be shared among each said control unit based on information for implementation of automatic cruising or pseudo-automatic cruising of said vehicle.

10. (Currently Amended) The vehicle integrated control system according to claim 9, wherein said processing ~~unit~~ sub-unit generates information representing a degree of arbitration with respect to said control target at each said control unit.

11. (Currently Amended) The vehicle integrated control system according to claim 1, wherein said processing unit ~~or said third processing unit~~ comprises a processing ~~unit~~ sub-unit generating information processed so as to be shared among each said control unit to realize a behavior of the vehicle consistent with a control target, based on a current dynamic state of the vehicle.

12. (Currently Amended) The vehicle integrated control system according to claim 11, wherein said processing ~~unit~~ sub-unit generates information representing a degree of arbitration with respect to said control target at each said control unit.

13. (Currently Amended) The vehicle integrated control system according to claim 1, wherein each said control unit comprises a driving system control unit and a brake system control unit,

wherein said driving system control unit and said brake system control unit have a driving force and a braking force distributed with respect to a requested driving force so as to realize a desired behavior of the vehicle in co-operation.

14. (Previously Presented) The vehicle integrated control system according to claim 1, wherein each said control unit provides control such that reflection of information from said processing unit is rejected.

15. (Currently Amended) The vehicle integrated control system according to claim 3, wherein each said control unit outputs information to said processing unit. ~~unit, said second processing unit or said third processing unit.~~

16. (Currently Amended) The vehicle integrated control system according to claim 1, wherein each said control unit is realized by each ECU, and operation is executed at said each ECU from an upper control hierarchy corresponding to a request of a driver towards a lower control hierarchy corresponding to each said actuator.

17. (Currently Amended) The vehicle integrated control system according to claim 1, wherein

~~said~~a driving system control unit is realized by a first ECU,

~~said~~a brake system control unit is realized by a second ECU,

~~said~~a steering system control unit is realized by a third ECU,

operation is executed from an upper control hierarchy corresponding to a request of a driver towards a lower control hierarchy corresponding to each said actuator at each said first, second and third ECU,

said processing unit is realized by a fourth ECU differing from said first, second and third ECUs,

said first, second and ~~to~~ third ECUs have an operation controlled in parallel, and

said fourth ECU is connected to an upper control hierarchy side of said first, second and ~~to~~ third ECUs via an interface.

18. (Currently Amended) A vehicle integrated control system comprises a plurality of control units operating autonomously for controlling a running state of a vehicle based on a manipulation request,

wherein each said control unit comprises

sensing means for sensing an operation request with respect to at least one control unit, and

controller means for controlling said vehicle by generating a control target based on a sensed request, and manipulating an actuator set in correspondence with each said control unit, using said control target,

said system further comprising:

a processing unit operating parallel to each said control unit for generating and providing to each said control unit information to be used to modify said operation request or said control target, as necessary, at each said control unit,

said at least one control unit or said processing unit generating information processed such that said sensed request is shared among each ~~of~~ said control unit.

19. (Currently Amended) A vehicle integrated control system comprising:

a plurality of control units controlling a running state of a vehicle based on a manipulation request, and

a processing unit generating information to be used at each said control unit based on environmental information around said vehicle or information related to a driver, and providing the generated information to each said control unit,

wherein each said control unit comprises:

sensing means for sensing an operation request with respect to at least one control unit, and

a calculation unit for calculating information related to a control target to manipulate an actuator set in correspondence with each said control unit using at least one of said information generated at said processing unit and said sensed operation request,

said at least one control unit or said processing unit generating information processed such that said sensed request is shared among each ~~of~~ said control unit.

20. (Currently Amended) A vehicle integrated control system comprising:

a plurality of control units controlling a running state of a vehicle based on a manipulation request, and

a processing unit generating information to be used at each said control unit to cause said vehicle to realize a predetermined behavior, and providing the generated information to each said control unit,

wherein each said control unit comprises:

sensing means for sensing an operation request with respect to at least one control ~~unit~~unit, and

calculation means for calculating information related to a control target to manipulate an actuator set in correspondence with each said control unit using at least one of said information generated by said processing unit and said sensed operation request,

said at least one control unit or said processing unit generating information processed such that said sensed request is shared among each ~~of~~ said control unit.

21. (Currently Amended) A vehicle integrated control system comprising:

a plurality of control units controlling a running state of a vehicle based on a manipulation request, and

a processing unit generating information to be used at each said control unit based on a current dynamic state of said vehicle, and providing the generated information to each said control unit,

wherein each said control unit comprises:

sensing means for sensing an operation request with respect to at least one control unit, and

calculation means for calculating information related to a control target to manipulate an actuator set in correspondence with each said control unit using at least one of said information generated by said processing unit and said sensed operation request,

said at least one control unit or said processing unit generating information processed such that said sensed request is shared among each ~~of~~ said control unit.

22. (Currently Amended) A vehicle integrated control system comprising:

a plurality of control units controlling a running state of a vehicle based on a manipulation request,

a first processing unit generating information to be used at each said control unit based on environmental information around said vehicle or information related to a driver, and providing the generated information to each said control unit,

a second processing unit generating information to be used at each said control unit to cause said vehicle to realize a predetermined behavior, and providing the generated information to each said control unit, and

a third processing unit generating information to be used at each said control unit based on a current dynamic state of said vehicle, and providing the generated information to each said control unit,

wherein each said control unit comprises:

sensing means for sensing an operation request with respect to at least one control unit, and

first calculation means for calculating first information related to a control target to manipulate an actuator set in correspondence with each said control unit using at least one of said information generated at said first processing unit and said sensed operation request,

second calculation means for calculating second information related to a control target to manipulate an actuator set in correspondence with each said control unit using at least one of said information generated at said second processing unit and said calculated first information, and

third calculation means for calculating third information related to a control target to manipulate an actuator set in correspondence with each said control unit using at least one of said information generated at said third processing unit and said calculated second information,

said at least one control unit or each said first, second and third processing unit units generating information processed such that said sensed request is shared among each ~~of~~ said control unit.

23. (Currently Amended) The vehicle integrated control system according to claim 19, wherein each said control unit operates autonomously and in parallel.

24. (Currently Amended) The vehicle integrated control system according to claim 18, wherein said processing unit ~~or said first processing unit~~ comprises

means for sensing environmental information around said vehicle,

means for sensing information related to a driver of said vehicle, and

processing means for generating information processed such that said sensed information is shared among each said control unit.

25. (Previously Presented) The vehicle integrated control system according to claim 24, wherein said processing means includes means for generating information representing a degree of correction with respect to a request of said driver at each said control unit.

26. (Currently Amended) The vehicle integrated control system according to ~~claim 18~~claim 18, wherein said processing unit ~~or said second processing unit~~ comprises processing means for generating information processed so as to be shared among each said control unit, based on information for implementation of automatic cruising or pseudo-automatic cruising of said vehicle.

27. (Previously Presented) The vehicle integrated control system according to claim 26, wherein said processing means includes means for generating information representing a degree of arbitration with respect to said control target at each said control unit.

28. (Currently Amended) The vehicle integrated control system according to claim 18, wherein said processing unit ~~or said third processing unit~~ comprises processing means for generating information processed so as to be shared among each said control unit to realize a behavior of the vehicle consistent with a control target, based on a current dynamic state of said vehicle.

29. (Previously Presented) The vehicle integrated control system according to claim 28, wherein said processing means includes means for generating information representing a degree of arbitration with respect to said control target at each said control unit.

30. (Currently Amended) The vehicle integrated control system according to claim 18, wherein each said control unit comprises a driving system control unit and a brake system control unit,

wherein said driving system control unit and said brake system control unit have a driving force and a braking force distributed with respect to a requested driving force so as to realize a desired behavior of the vehicle in co-operation.

31. (Previously Presented) The vehicle integrated control system according to claim 18, wherein each said control unit further includes means for controlling such that reflection of information from said processing means is rejected.

32. (Currently Amended) The vehicle integrated control system according to claim 20, wherein each said control unit further includes means for providing information to said processing unit.~~unit, said second processing unit or said third processing unit.~~

33. (Currently Amended) The vehicle integrated control system according to claim 18, wherein each said control unit is realized by each ECU, and operation is executed at ~~said~~ each said ECU from an upper control hierarchy corresponding to a request of a driver towards a lower control hierarchy corresponding to each actuator.

34. (Currently Amended) The vehicle integrated control system according to claim 18, wherein

~~said~~a driving system control unit is realized by a first ECU,

~~said~~a brake system control unit is realized by a second ECU,

~~said~~a steering system control unit is realized by a third ECU,

operation is executed from an upper control hierarchy corresponding to a request of a driver towards a lower control hierarchy corresponding to each said actuator at each said first, second and third ECU,

said processing unit is realized by a fourth ECU differing from said first, second and third ECUs,

said first, second and ~~to~~ third ECUs have an operation controlled in parallel, and

said fourth ECU is connected to an upper control hierarchy side of said first, second and ~~to~~ third ECUs via an interface.